Title (en)

Bandage of a permanent magnet rotor

Title (de)

Bandage eines Permanentmagnetläufers

Title (fr)

Bandage d'un rotor à aimant permanent

Publication

EP 2560270 A1 20130220 (EN)

Application

EP 11006750 A 20110818

Priority

EP 11006750 A 20110818

Abstract (en)

The present invention relates to a retaining band (4) which provides outer reinforcement for the rotor assembly (1) of a high speed electrical machine. The rotor assembly (1) includes a plurality of circumferentially-spaced permanent magnet assemblies (2). A retaining band (4) is fitted around the rotor assembly (1) and applies a pre-load to the permanent magnet assemblies (2) in the radial direction. The retaining band (4) has a plurality of voids (6) that are sized and shaped to provide the retaining band with a progressive spring stiffness in the radial direction. The voids (6) are open before the retaining band (4) is fitted and during the fitting process the retaining band is deflected in the radial direction so that the voids (6) close up and the retaining band becomes substantially solid.

IPC 8 full level

H02K 5/128 (2006.01); **H02K 1/27** (2006.01); H02K 15/03 (2006.01)

CPC (source: EP KR US)

H02K 1/278 (2013.01 - EP KR US); **H02K 1/28** (2013.01 - KR); **H02K 5/128** (2013.01 - US); **H02K 15/03** (2013.01 - KR); H02K 15/03 (2013.01 - EP US); Y10T 29/49 (2015.01 - EP US); Y10T 29/49993 (2015.01 - EP US); Y10T 29/49995 (2015.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

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DOCDB simple family (publication)

EP 2560270 A1 20130220; **EP 2560270 B1 20191002**; BR 102012020745 A2 20140819; CA 2786492 A1 20130218; CN 102957246 A 20130306; CN 102957246 B 20171013; KR 20130020639 A 20130227; US 2013043756 A1 20130221; US 9018817 B2 20150428

DOCDB simple family (application)

EP 11006750 A 20110818; BR 102012020745 A 20120817; CA 2786492 A 20120815; CN 201210296014 A 20120817; KR 20120090284 A 20120817; US 201213570296 A 20120809